

Abstract

An assembly for providing thermal compensation to a fiber optical device is described. The optical fiber device is secured in a support structure made of a material having a negative coefficient of thermal expansion. The securing means located at one end of the support structure is made of a material having a positive coefficient of thermal expansion. The securing means is also adjustable lengthwise so as to provide longitudinal adjustment to the tension on the optical fiber device. By selecting the appropriate materials and dimensions the assembly can exactly compensate for the thermal dependency of the optical device with an overall length much smaller than assemblies based on materials with dissimilar positive CTEs.